I CLAIM:

1. A cross-linkable or cross-linked rubber composition which is usable for constituting a tire tread, said composition being based on one or more diene elastomers and a hydrocarbon plasticizing resin miscible in said diene elastomer having glass transition temperature (Tg) of between 10°C and 150°C and a number-average molecular weight of between 400 g/mol and 2000 g/mol, wherein said composition comprises:

between 50 phr and 100 phr of a majority diene elastomer having a glass transition temperature Tg of between -65°C and -10°C;

between 0 phr and 50 phr of a minority diene elastomer having a glass transition temperature Tg of between -110°C and -80°C; and

from 5 phr to 35 phr of a hydrocarbon plasticizing resin.

2. The rubber composition according to Claim 1,

wherein said majority diene elastomer is selected from the group consisting of solution-prepared styrene-butadiene copolymers, emulsion-prepared styrene-butadiene copolymers, natural polyisoprenes, synthetic polyisoprenes having a cis-1,4 linkage content greater than 95% and mixtures thereof, and

said minority diene elastomer is a polybutadiene having a cis-1,4 linkage content greater than 90%.

3. The rubber composition according to Claim 2, wherein said composition comprises a solution-prepared styrene-butadiene copolymer which has a Tg of between -50°C and –15°C.

4. The rubber composition according to Claim 2, wherein said composition comprises an emulsion-prepared styrene-butadiene copolymer which has a Tg of between –65°C and –30°C.

5. The rubber composition according to Claim 1, wherein said majority diene elastomer is present in a quantity of 100 phr.

6. The rubber composition according to Claim 1, wherein said composition comprises a blend of said majority and minority diene elastomers.

7. The rubber composition according to Claim 6, wherein said majority diene elastomer is a solution-prepared styrene-butadiene copolymer and said minority diene elastomer is a polybutadiene having a cis-1,4 linkage content greater than 90%.

8. The rubber composition according to Claim 6, wherein said majority diene elastomer is an emulsion-prepared styrene-butadiene copolymer and said minority diene elastomer is a polybutadiene having a cis-1,4 linkage content greater than 90%.

9. The rubber composition according to Claim 6, wherein said majority diene elastomer is a natural or synthetic polyisoprene and said minority diene elastomer is a polybutadiene having a cis-1,4 linkage content greater than 90%.

10. The rubber composition according to Claim 1, wherein said hydrocarbon plasticizing resin has a glass transition temperature of from 30°C to 100°C.

11. The rubber composition according to Claim 1, wherein said hydrocarbon plasticizing resin has a number-average molecular weight of between 400 and 1000 g/mol, and a polymolecularity index less than 2.

12. The rubber composition according to Claim 1, wherein said hydrocarbon plasticizing resin is present in a quantity of from 15 phr to 25 phr.

13. The rubber composition according to Claim 1, further comprising one or more plasticizing oils in a quantity less than or equal to 30 phr and selected from among paraffinic and aromatic type plasticizing oils.

14. The rubber composition according to Claim 1, wherein the reinforcing filler is carbon black.

15. The rubber composition according to Claim 1, wherein the reinforcing filler is reinforcing white filler.

16. The rubber composition according to Claim 1, wherein the reinforcing filler is a blend of carbon black and a reinforcing white filler.

17. A tread for a tire comprising a rubber composition in accordance with Claim 1.

18. A tire of passenger-vehicle or heavy-vehicle type comprising a tread according to Claim 17.